



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,579	09/16/2003	David A. Foster		2990
7590 David A. Foster 2119 W. Potomac Ave. #2 Chicago, IL 60622		05/09/2007	EXAMINER SAADAT, CAMERON	
			ART UNIT 3714	PAPER NUMBER
			MAIL DATE 05/09/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/663,579	FOSTER, DAVID A.
	<b>Examiner</b>	<b>Art Unit</b>
	Cameron Saadat	3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 20 December 2006.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

### **DETAILED ACTION**

In response to amendment filed 12/20/2006, claims 1-20 are pending in this application.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-10, and 14-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Greenbowe et al. (US 5,813,865; hereinafter Greenbowe).**

This holding, incorporated herein, is maintained from the prior action for the cited claims as amended. Response to the applicant's remarks are provided below and incorporated herein.

Regarding claims 1 and 15, Greenbowe discloses a computerized system and method that executes a simulation model, comprising: a plurality of model entities selected from the group consisting of instrument entities and outcome entities; a code segment for displaying the values of selected model entities (Col. 1, line 60 – Col. 2, line 30); a code segment for presenting an in-context description of each outcome entity and the method used to compute the outcome entity's value; a code segment for presenting qualitative descriptions of one or more state changes in the simulation (Col. 4, lines 47-54); and a means for a learner to control a selected instrument entity (Col. 4, lines 29-34), wherein each instrument entity excluded from learner control is controlled by a selected automated agent (Col. 7, lines 65-67; Col 10, lines 4-12).

Regarding claims 2 and 16, Greenbowe discloses a system wherein the learner controls the selected instrument entity by selecting values or by delegating the selection to an automated agent. See Col. 4, lines 29-34; Col 10, lines 4-12.

Regarding claim 3, Greenbowe discloses a system wherein the code segment for presenting an in-context description of each outcome entity and the method used to compute the outcome entity's value provides a link to a description for another related model entity. See Col. 10, lines 16-24.

Regarding claims 4 and 17, Greenbowe discloses a system wherein the code segment for presenting an in-context description of each outcome entity and the method used to compute the outcome entity's value provides algorithmic details in the description of the method of computation. See Col. 1, line 67- Col. 2, line 9.

Regarding claim 5, Greenbowe discloses a system wherein the code segment for presenting qualitative descriptions of one or more state changes in the simulation automatically prioritizes the descriptions and automatically discards descriptions that are less helpful to the learner. See Col. 3, 49-51; Col. 5, lines 16-19.

Regarding claim 6, Greenbowe discloses a system wherein the simulation model is associated with a plurality of different problem scenarios. Col. 4, lines 16-20.

Regarding claims 7 and 18, Greenbowe discloses a system wherein a designer can allow the learner to control one set of instrument entities in one problem scenario and to control a different set of instrument entities in another problem scenario. See Col. 4, lines 26-36.

Regarding claim 8, Greenbowe discloses a system wherein different sets of automated agents control the excluded instrument entities in different problem scenarios. See Col. 7, lines 65-67; Col. 10, lines 4-12.

Regarding claim 9, Greenbowe discloses a system wherein the designer assigns one set of automated agents to an instrument entity in one problem scenario and a different set of automated agents to the instrument entity in another problem scenario. See Col. 10, lines 4-12.

Regarding claims 10 and 19, Greenbowe discloses a system further comprising a development tool for defining model entities, properties, and simulation components. See Col. 4, lines 26-36.

Regarding claim 14, Greenbowe discloses a system further comprising a graphical user interface for the learner to interact with the simulation. See Col. 4, lines 47-60.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 11-13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenbowe et al. (US 5,813,865; hereinafter Greenbowe).**

This holding, incorporated herein, is maintained from the prior action for the cited claims as amended. Response to the applicant's remarks are provided below and incorporated herein.

Regarding claims 11 and 12, Greenbowe discloses all of the claimed subject matter with the exception of explicitly disclosing that the simulation model is a representation of an economic or ecological system. However, it is applicants own admission that, "Quantitative domain models are

Art Unit: 3714

commonly used in research and for forecasting, in domains ranging from economics and business, to chemistry, biology, and medicine, to mechanical and electronic systems.” See Specification, P. 2, lines 1-

3. In addition, Greenbowe discloses a simulation model for chemistry and physics in a preferred embodiment, and that the system may be used to teach any subject matter where the learning process is enhanced by the performance of experiments. See Col. 13, lines 23-26. Thus, it would have been obvious to one of ordinary skill in the art to modify the simulation model described in Greenbowe by providing an economic or ecological simulation model, in order to enhance the learning process in those topics, by allowing a student to experiment with modifying parameters and viewing results of those modifications.

Regarding claims 13 and 20, Greenbowe discloses a system wherein the simulation model is executed on a computer. Greenbowe does not explicitly disclose the feature of transmitting the simulation model through a network. However, the examiner takes official notice that the feature of transmitting educational content over a network is old and well-known for providing educational content to several students in various geographical locations, and thereby not requiring students to commute to a classroom. Therefore, it would have been obvious to one of ordinary skill in the art to modify the simulation model described in Greenbowe, by transmitting the simulation model over a network for providing educational content to several students in various geographical locations, and thereby not requiring students to commute to a classroom.

#### *Response to Arguments*

Applicant's arguments filed 12/20/2006 have been fully considered but they are not persuasive. Applicant emphasizes that Greenbowe does not disclose an “in-context description” as described in applicant's specification, pages 22-24; arguing that the specification explains that as the simulation is being run, a user can click on a pop-up menu for any quantity referenced or represented, at each location at which is referenced or represented; the in-context pop-up menu provides a description of what the quantity is, what it measures, and how the quantity is computed. However, the examiner notes that that

Art Unit: 3714

the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant additionally purports that the claimed “automated agent” is an algorithm that strategically controls one of the input entities through successive time periods, and points to Figure 14 and 17 of applicant’s specification. However, the examiner points out that claims are given their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See also *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

It is further asserted by applicant that Greenbowe does not disclose the claimed feature of automatically prioritizing and automatically discarding descriptions that are less helpful to the learner; arguing that in Greenbowe, it is up to the student to select video clips, rather than the system automatically formulating and selecting them for presentation based on specific occurrences in a simulation. The examiner disagrees with this position. Although Greenbowe requires some user input in order to prioritize descriptions, the computerized system and method provides at least some form of automatic process in response to the user input. It is noted that the claims are not directed to a solely automatic process. In addition, the feature of automatically formulating and selecting “based on specific occurrences in a simulation” is not claimed.

Applicant further emphasizes that Greenbowe’s system provides different experiments for the student to choose from, but there is no indication that different experiments share the same simulation model with the model’s set of defined entities. It is noted that claim 6 includes the following limitations, “wherein the simulation model is associated with a plurality of different problem scenarios. Accordingly,

Art Unit: 3714

Greenbowe teaches a simulation model that is associated with a plurality of different problem scenarios (See Col. 4, lines 26-34).

It is additionally argued by applicant that does not disclose “a development tool for defining model entities, properties, and simulation components” as claimed in claim 10. The examiner disagrees. In Greenbowe, a student selects a particular experiment to perform and thus modifies the simulated experiment based on his/her selection. See Col. 4, lines 26-34.

*Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cameron Saadat whose telephone number is (571) 272-4443. The examiner can normally be reached on M-F 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Robert E. Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Cameron Saadat  
May 7, 2007



Robert E Pezzuto  
Supervisory Patent Examiner  
Art Unit 3714